





January 2017 Wastewater – pH event data

WASTEWATER DATA:

Notes:

The following is a summary of events regarding effluent pH measurements taken at the discharge of the effluent tank, TNK-0025.

Measurements for pH were captured from sensor AT-0025, which measures pH at the discharge of TNK-0025.

Flow values were captured from FT-0020, which measures the rate of flow at the discharge of TNK-0025 to the city's sanitary system in Gallons-Per-Minute (GPM.)

Data values were retrieved from control software at 5 second and/or 1 second intervals capturing the previously stored value. Hourly average pH reported has been recalculated for improved accuracy and is not from the daily reports.

Measurements were captured in Excel/MiniTab worksheets and evaluated for correlation with regards to pH, flow, time of events, and pump speeds.

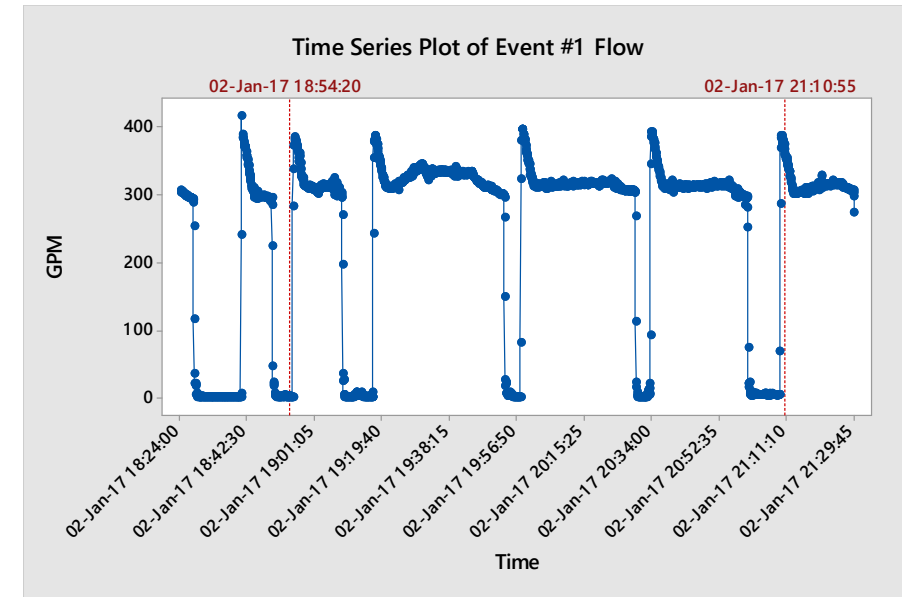
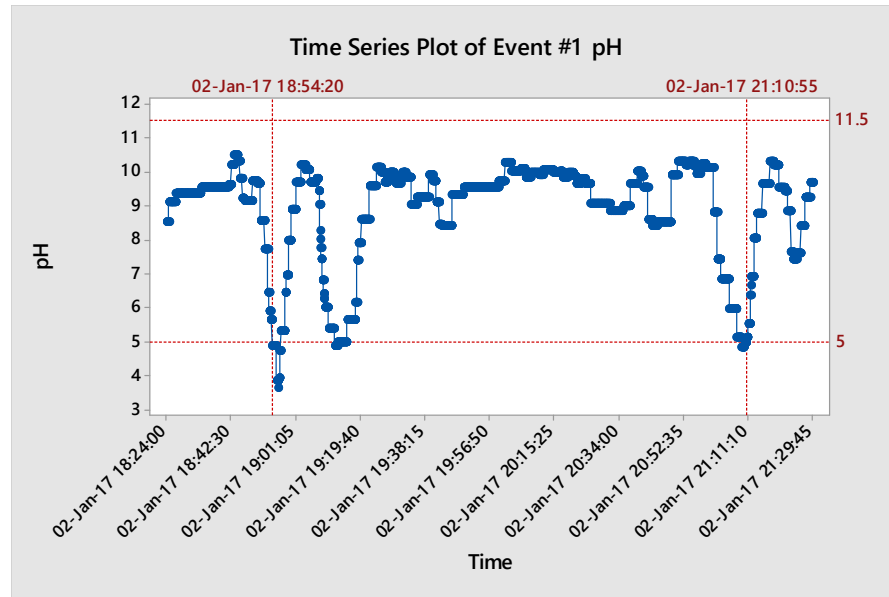
Each event in the following pages represents a period of time where the pH measured from TNK-0025 was either above 11.5 or below 5.0.

Events were filtered for “zero” flow. If flow was not > than 25 GPM, event time was not evaluated.

An event represents any instance or combination of instances where pH was above 11.5 or below 5.0 and flow was greater than 25gpm from midnight to midnight the following day.

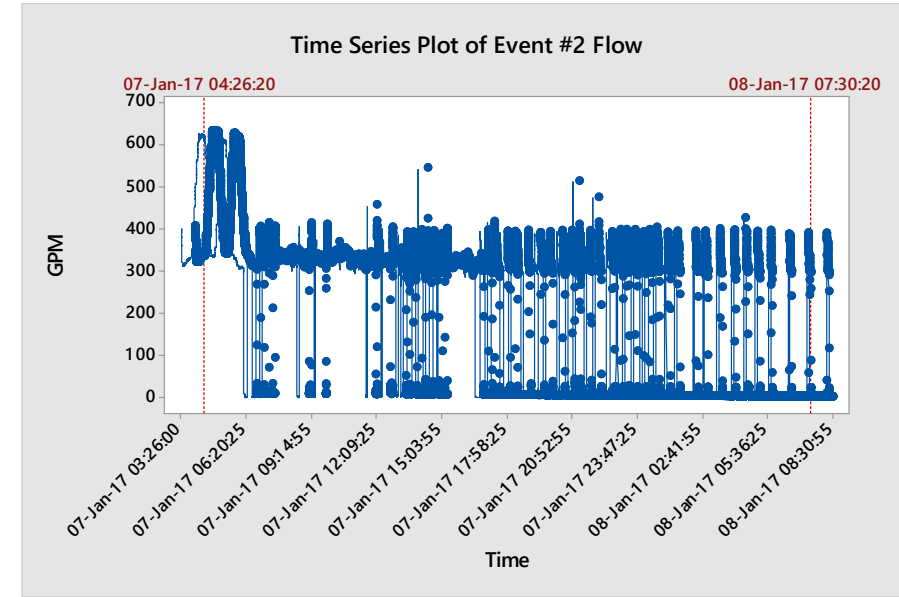
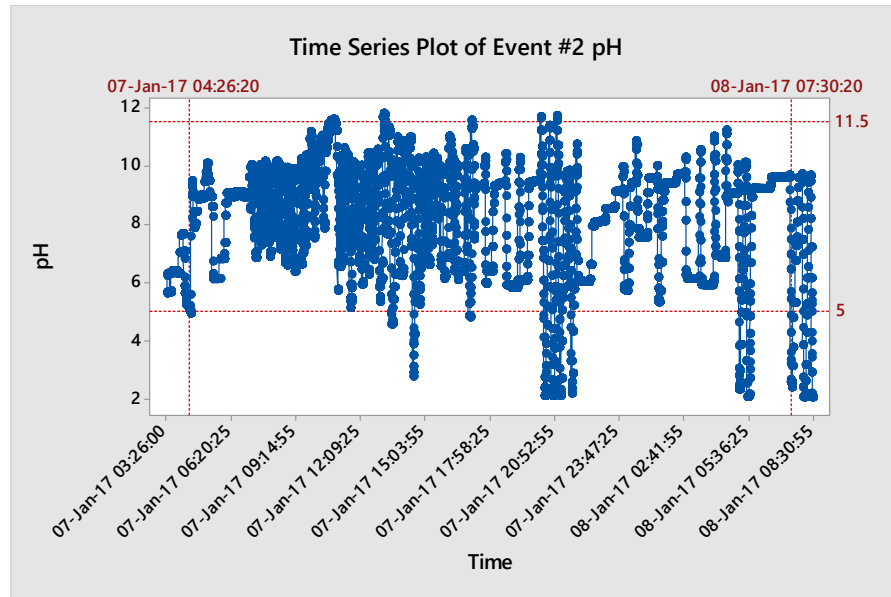
If an event occurs, any instances or combination of instances that occur prior to 8:00am the following day are considered part of the initial event for the purposes of this report due to the first review opportunity of the daily effluent report occurring no earlier than 8:00 am the following day.

EVENT SUMMARY:



Event #1 – 1/2/17: Effluent flowed to the city below 5.0pH for a total of 3.12 minutes out of 314.20 minutes of discharge. Flow weighted average pH for the effluent sent to the city for those hours involved were 8.93 and 8.10. The flow weighted average pH for the effluent sent to the city for the day was 8.95.

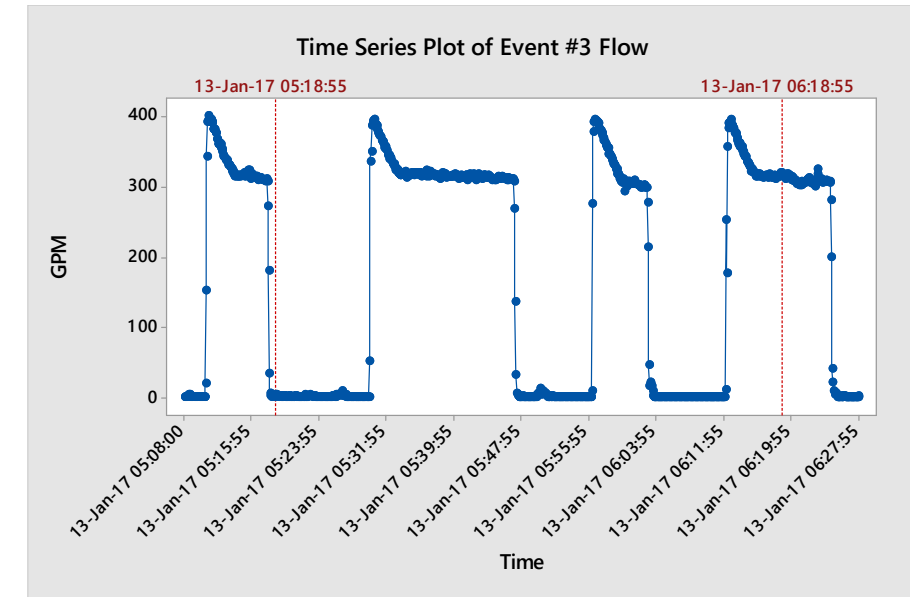
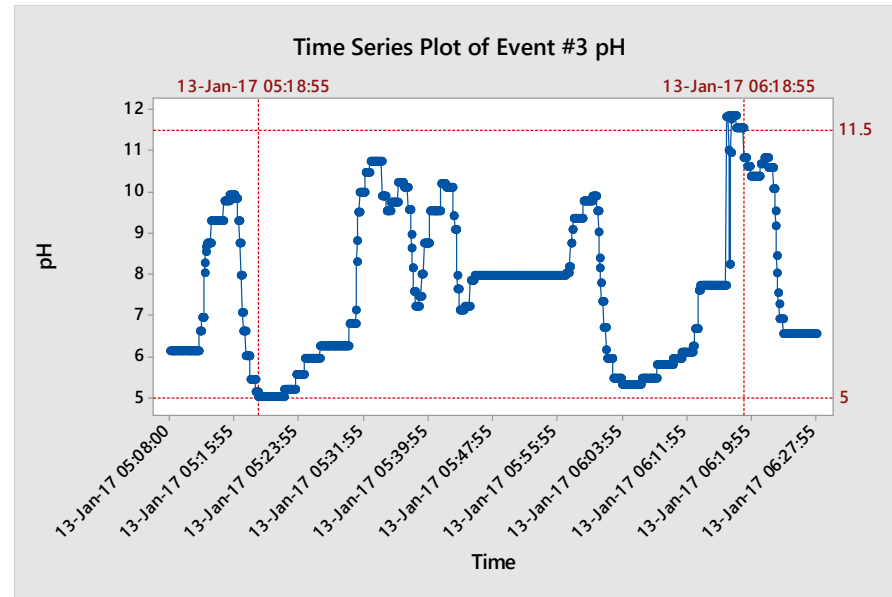
EVENT SUMMARY:



Event #2 – 1/7/17: Effluent flowed to the city below 5.0pH for a total of 5.15 minutes and above 11.5pH for a total of 7.40 minutes out of 1,016.93 minutes of discharge. Flow weighted average pH for the effluent sent to the city for those hours involved were 6.99, 9.37, 8.64, 8.80, 9.94, and 8.74. The flow weighted average pH for the effluent sent to the city for the day was 8.00.

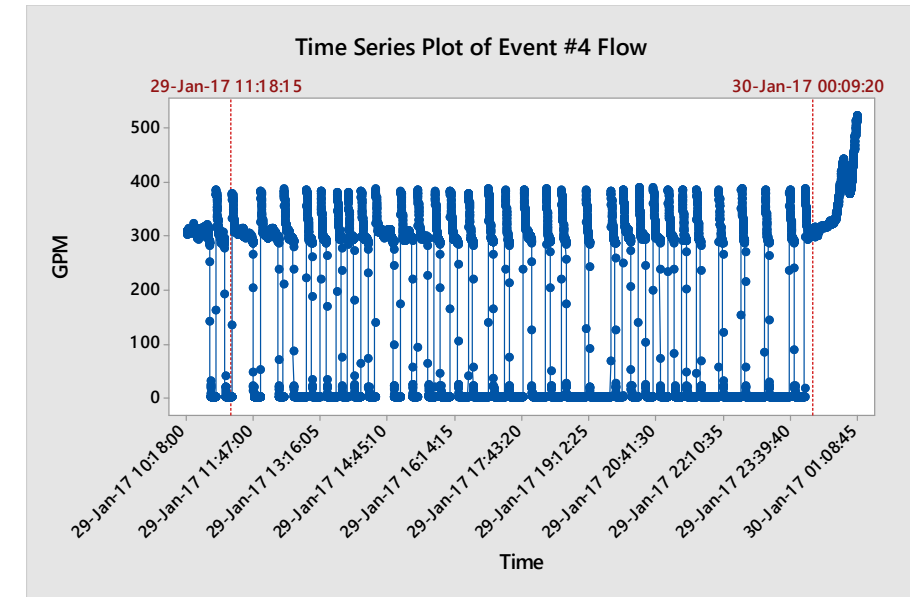
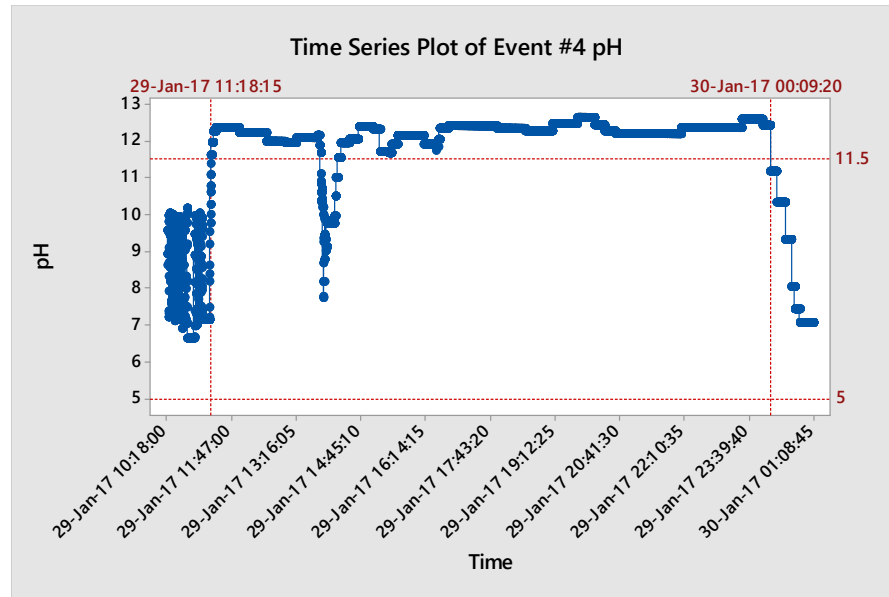
One instance of flow to the city below 5.0pH reoccurred early morning 1/18 for 1.07 minutes. Flow weighted average for the effluent sent to the city for that hour was 8.01.

EVENT SUMMARY:



Event #3 – 1/13/17: Effluent flowed to the city above 11.5pH for a total of 1.77 minutes out of 647.17 minutes of discharge. Flow weighted average pH for the effluent sent to the city for that hour was 8.68. The flow weighted average pH for the effluent sent to the city for the day was 7.95.

EVENT SUMMARY:



Event #4 – 1/29/17: Effluent flowed to the city above 11.5pH for a total of 299.53 minutes out of 493.45 minutes of discharge. Flow weighted average pH for the effluent sent to the city for those hours involved were 11.40, 12.12, 11.20, 11.90, 11.98, 12.10, 12.37, 12.27, 12.51, 12.32, 12.18, 12.30, and 12.46. The flow weighted average pH for the effluent sent to the city for the day was 10.78.

The event carried over into the early morning 1/30 for 9.42 minutes. Flow weighted average pH for the effluent sent to the city for that hour was 9.40.

Upon receiving the daily report the next morning, an investigation found a faulty HCl pump prevented adequate pH adjustment.



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